determining whether a set of vehicle idle entry conditions comprising whether the vehicle is below a predetermined maximum idle speed and whether an accelerator is below a predetermined minimum pedal position;

selectively activating a vehicle system controller to control the generator to control engine idle when a predetermined first set of operating conditions is present;

selectively activating an engine controller to control engine idle speed when a predetermined second set of operating conditions is present; and

turning off the engine when the predetermined first set of conditions is not present and when the engine has been in a current vehicle idle mode for a predetermined amount of time.

2. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when a state of charge of a battery is below predetermined battery minimum state of charge.

3. (amended) A method for controlling idle speed of an engine in a hybrid electric vehicle including a generator that is operatively coupled to the engine and climate control reservoir, the method comprising:

determining whether a first set of vehicle idle entry conditions comprising whether the vehicle is below a predetermined maximum idle speed and whether an accelerator is below a predetermined minimum pedal position;

selectively activating a vehicle system controller to control the generator to control engine idle when a predetermined first set of operating conditions is present;

selectively activating an engine controller to control engine idle speed when a predetermined second set of operating conditions is present;

turning off the engine when the predetermined first set of conditions is not present and when the engine has been in a current vehicle idle mode for a predetermined amount of time; and

selectively activating the vehicle system controller to control the generator to control engine idle when a vacuum level in a climate control reservoir is below a predetermined minimum climate control vacuum level.

a' cont.

4. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when a vacuum level in a brake system reservoir is below a predetermined brake system vacuum level.

5. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when a vapor canister contained within a fuel system requires purging.

6. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when an adaptive fuel table requires HEV-fast adaptive learning.

7. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle and engine temperature when the engine has cooled below a predetermined engine temperature.

8. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when a catalyst has cooled below a predetermined minimum catalyst temperature.

9. (amended) The method of claim 1, wherein the step of selectively activating the vehicle system controller to control the generator to control engine idle when air conditioning has been requested by a vehicle operator.

10. (amended) The method of claim 1, wherein the step of selectively activating the engine controller to control engine idle speed when:

the generator has failed; or

a battery state of charge exceeds a maximum desired level.

a1 ckl'd.

11. (amended) A hybrid electric vehicle including a generator having a rotor assembly which is operatively coupled to an engine, the hybrid electric vehicle comprising:

a vehicle system controller for controlling idle speed of the engine when the battery state of charge exceeds a maximum desired level or the generator fails; and

an engine controller for controlling the idle speed of the engine when the battery state of charge is below a predetermined level and no generator failure.

a2 cont.

13. (amended) The hybrid electric vehicle of claim 11, wherein the second set of operating conditions is selected from a group consisting of a high battery state of charge and a failed generator.

14. (amended) A method for controlling idle speed of an engine in a hybrid electric vehicle having a generator that is operatively coupled to the engine, the method comprising:

determining whether a set of vehicle idle entry conditions comprising whether the vehicle is below a predetermined maximum idle speed and whether an accelerator is below a predetermined minimum pedal position;

selectively activating a vehicle system controller to control the generator to control engine idle when a first set of operating conditions comprising: a low battery state of charge, a low climate control vacuum level, a low brake system reservoir vacuum level, a high fuel tank pressure, the existence of a minimum time period since a last vapor canister purging, the existence of current vapor canister purging, the existence of a learned adaptive fuel table for the current driving mode, a low engine temperature, a low catalyst temperature, and the state of activation of an air conditioning switch;

selectively activating an engine controller to control engine idle speed when a second set of operating conditions is present; and

turning off the engine when the first set of operating conditions is not present and when the engine has been in a current vehicle idle mode for a predetermined amount of time, otherwise maintaining the current vehicle idle mode.

a2 cncld.

15. (amended) A method for controlling idle speed of an engine in a hybrid electric vehicle having a generator that is operatively coupled to the engine, the method comprising:

determining whether a set of vehicle idle entry conditions comprising whether the vehicle is below a predetermined maximum idle speed and whether an accelerator is below a predetermined minimum pedal position are met;

selectively activating a vehicle system controller to control the generator and producing a first desired effect when a first set of operating conditions exist;

selectively activating an engine controller to control engine idle speed when a second set of operating conditions is present;

turning off the engine when the first set of operating conditions is not present and when the engine has been in a current vehicle idle mode for a predetermined amount of time, otherwise maintaining the current vehicle idle mode; and

selectively activating the engine controller to control engine idle speed when the generator has failed.

16. (amended) A method for controlling idle speed of an engine in a hybrid electric vehicle having a generator that is operatively coupled to the engine, the method comprising:

determining whether a set of vehicle idle entry conditions comprising whether the vehicle is below a predetermined maximum idle speed and whether an accelerator is below a predetermined minimum pedal position are met;

selectively activating a vehicle system controller to control the generator to control engine idle when a first set of operating conditions exist;

selectively activating an engine controller to control engine idle speed when a second set of operating conditions is present;

turning off the engine when the first set of operating conditions is not present and when the engine has been in a current vehicle idle mode for a predetermined amount of time, otherwise maintaining the current vehicle idle mode; and

selectively activating the engine controller to control engine idle speed when a battery state of charge exceeds a maximum desired level.